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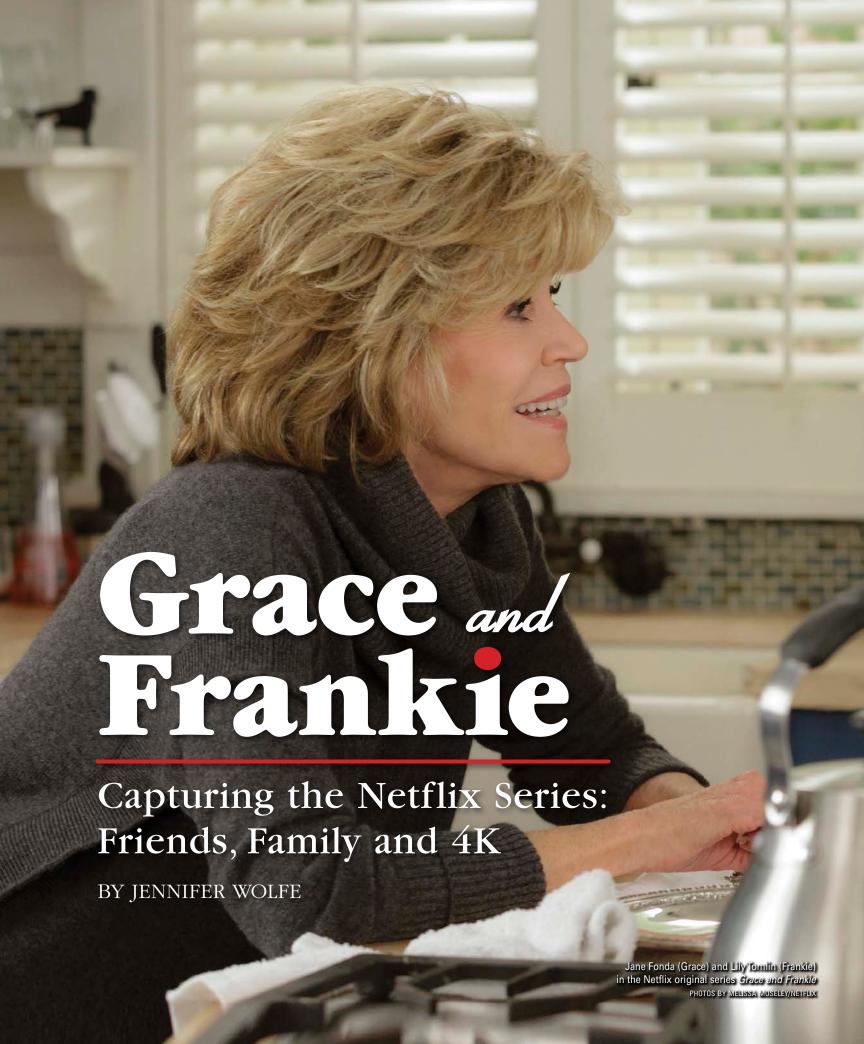


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hat's it like to work with a screen legend? While potentially a life-changing experience, some cinematographers might also describe it as a touch nerve-wracking. Now try *four* legendary talents, in a single-camera television comedy series, but with a "cinematic" feel. Oh, and do it all in 4K.

Grace and Frankie is the newest addition to streaming giant Netflix's lineup of original series. Executive produced by Marta Kauffman, one of the creators of network stalwart *Friends*, the series stars Jane Fonda and Lily Tomlin alongside erstwhile soon-to-be-ex-husbands Martin Sheen and Sam Waterston. The show debuted May 8.

With the Netflix mandate to shoot in 4K, an attempt at future-proofing its original content, director of photography Gale Tattersall had limited camera options: the Sony F55 and F65 CineAlta 4K digital cinema cameras, the RED EPIC and the RED

Dragon. Opting to go with the RED Dragon because of its gentler touch with skin tones, Tattersall and his crew photographed the series in 5K for a 4K 16:9 extraction, with material recorded to 512 GB REDMAG SSD cards prior to being transferred to hard drives for delivery to editorial.

The first episode, directed by Tate Taylor, was shot over nine days, with the remaining 12

episodes—each with a different director—shot over five and a half days each, with brief hiatuses in between. Employing two RED Dragons, Tattersall used Angenieux Optimo 17-80mm T2.2 and 24-290mm T2.8 zoom lenses for the A-camera, while the B-camera was outfitted with the Optimo 24-290. For handheld and Steadicam work, the camera crew used a set of Angenieux Optimo 15-40mm T2.6 and 28-76mm T2.6 lenses. One

episode directed by Tristram Shapeero used a full complement of Cooke S4 prime lenses.

"With the first season, everyone's still finding their way," Tattersall says of the production. "The writers, the actors and the camera department, we're all finding our way, defining what kind of show it is. We know it's a comedy, but what kind of comedy? It's certainly not a sitcom, that's clearly a







dirty word. We talked about it being very cinematic, but 'cinematic' is actually rather difficult to oblige in a comedy, and, as the old adage goes, you don't tell jokes in the dark. Yet as the DP, I have a huge responsibility to look after our cast."

The series is "probably the most open and lit kind of show I have ever done," Tattersall continues. "But if we went anywhere near a sitcom, we would be failing totally. It had to look like a movie, and it had to have a glamorous and cinematic look, which is unbelievably tricky with modern digital cameras."

First AC Tony Gutierrez agrees. "4K (or 5K, and now 6K and higher) is ridiculously challenging," he comments. "There really are no simple shots anymore." With higher resolutions and large HD screens, Gutierrez says, wide shots using very wide lenses can be a problem because they allow viewers to see that infinity doesn't quite resolve into perfect sharpness.

"Although the lenses are the same, as you go up from 35mm film to 4K and on upwards toward 6K, you need longer and longer lenses to achieve the same field of view. For instance, on 35mm film, a 50mm lens gives you the same field of view as a 25mm in 16mm format. A 25mm lens is a relatively wide-angle lens and has a correspondingly deep depth of field at any T-stop. As you increase the focal length, the depth of field decreases. A 50mm lens has significantly less depth of field than a 25," Gutierrez explains. "So now in 5K, your normal 50mm lens really has to be a 65mm to give you the same field of view. If you're shooting in 6K, then it's a 70mm. A typical 35mm close-up might be done on a 100mm lens, but in 6K, that 100mm really needs to be a 140mm or more."

To achieve a shallow depth of field on *Grace* and *Frankie*, Tattersall tried using longer lenses, among other techniques, and employed the RED

Dragon's built-in neutral density filters to reduce the amount of light reaching the sensor. "It's very easy, those sorts of techniques," he asserts. "They're totally common now."

Color correction—a key component of creating a polished look for *Grace and Frankie* and its venerable cast—took place at Technicolor's Hollywood facility, with senior colorist Gareth Cook working closely with Tattersall to develop the final look for the series. In addition to working together on the FOX series *House*, the pair had previously teamed up on the pilot for CBS' *CSI: Crime Scene Investigation*, helping to launch the iconic series.

"The entire pipeline for the project was done in [Blackmagic] DaVinci [Resolve], from editorial to color correction to almost all of the deliverables," Cook says of *Grace and Frankie*. "I really love the color imagery of Resolve and how it interprets images. It is the toolset for colorists; everything is right there in front of you and easy to access, and it allows you to move through your projects with ease. You can also bring effects plug-ins into the system, which I ended up doing quite a bit on *Grace and Frankie* to achieve the look we wanted for our imagery."

Aside from skin tones, one of the biggest challenges of shooting a cast in their golden years is that everyone wants to wear black. "It's an elegant color, of course," Tattersall acknowledges, "but it can be difficult to capture properly in the digital age. What was so beautiful about shooting on film was not only how you could find separation in the highlights, but more particularly, and more relevant to the job I just did with *Grace and Frankie*, you could find separations in the blacks. Instead of getting a straight 45-degree line between 0 and 100 IRE on the sensitometric curve—pure black or pure

white—film provides more of an 'S' shape, with a 'shoulder' at the top and a 'toe' at the bottom where you can really dig in and find that separation."

The RED Dragon, on the other hand, tended to "crush" the blacks. "It almost looks like somebody went in there with a pair of scissors and cut a hole out and put a piece of black velvet behind everything," Tattersall notes. "The Dragon is a 100 percent perfect fit for *House of Cards* because they don't mind falling off into shadow. But if I shot using moody lighting and cross-lighting on *Grace and Frankie* and start bringing out textural details on faces, I'm fired."

Because color correction for *Grace and Frankie* took place as the series was still being shot, Tattersall employed a 30-inch Canon DP-V3010 4K reference display with a custom UHD drive system for remote monitoring. "It's a mind-blowingly accurate 4K reference color grade control monitor," Tattersall says. "It enabled me to communicate with Gareth remotely and see exactly what he was doing so I didn't have to sit in on sessions I didn't have time for anyway. I was able to give him copious notes from my office at Paramount while we were still shooting, which was incredibly valuable, especially in the beginning when we were still setting the overall look for things."

One of the dangers of HD color correction for a 4K workflow is that imperfections can frequently be missed, Tattersall warns. "The extra sharpness and detail of 4K can lead to some of the more unwanted aspects of the image to appear up close and personal," he explains. "If you *are* obliged to shoot 4K, then you need to take responsibility for it on that level. It would be unfortunate for material to be off the mark a few years down the road when consumers can access and screen material in true 4K."